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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,371	04/02/2004	Matthias Loeffler	2003DE417	2598
25255	7590	09/15/2005	EXAMINER	
CLARIANT CORPORATION INTELLECTUAL PROPERTY DEPARTMENT 4000 MONROE ROAD CHARLOTTE, NC 28205			BERNSHTEYN, MICHAEL	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/817,371	Applicant(s) LOEFFLER ET AL.	
	Examiner Michael Bernshteyn	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>09/30/2004</u> . | 6) <input type="checkbox"/> Other: ____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable as obvious over Loffler et al. (U.S. Patent Application Publication US 2001/0029287) in view of Falchi et al. (U.S. Patent 5,728,783).

Loffler discloses water-soluble or water-swellaable crosslinked copolymers consisting essentially of structural units of formula 1 (cyclic N-vinylcarboxamide) or a mixture of structural units of the formula 1 with structural units of the formula 2 (linear N-vinylcarboxamide) and structural units of the formula 3 (ammonium salt of an acrylamidoalkylsulfonic acid). These copolymers are crosslinked with compounds, which contain at least two olefinic double bonds. These crosslinked copolymers are suitable as thickeners, in particular for cosmetic and pharmaceutical preparations (abstract). He discloses that the invention provides crosslinked copolymers consisting essentially of: a1) 1 to 50% by weight of the repeating structural units of the formula 1, where n is an integer from 2 to 9, or a2) 1 to 50% by weight of a mixture of the repeating structural unit of formula 1 and of the repeating structural unit of the formula 2, where R, R¹ and R² may be identical or different and are hydrogen or a linear or branched alkyl or alkenyl group having in each case 1 to 30, preferably 1 to 20, in particular 1 to 12, carbon atoms and b) 49.99 to 98.99% by weight of the repeating structural unit of the formula 3, in which R³ is hydrogen, methyl or ethyl, Z is C₁–C₈-alkylene, n is an integer from 2 to 9, and X is an alkali metal or alkaline earth metal ion, and c) 0.01 to 8% by weight, preferably 0.01 to 5% by weight, of crosslinking structures resulting from monomers having at least two olefinic double bonds (page 1, paragraph [0009] – page 2 paragraph [0016]).

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All of the above fully corresponds to the limitations of claim 1, concerning ingredients of a copolymer (1a, 1b and 1c). Formulas 2, 3 and 4 in the prior art are correspondingly exactly the same as formulas 1, 2 and 3 in instant claims.

With regard to the limitation of instant claim 2, Loffler discloses that preferred copolymers according to the invention contain 2 to 30% by weight of structural units of the formula 1, or 1 and 2, 69.5 to 97.5% by weight of structural units of formula 3, and 0.2 to 3% by weight of crosslinking structures resulting from monomers having at least two olefinic double bonds (page 2, paragraph [0017]).

With regard to the limitation of instant claim 3, Loffler discloses that crosslinking structures from monomers having at least two olefinic double bonds are preferably derived from allyl acrylate or allyl methacrylate, dipropylene glycol diallyl ether, polyglycol diallyl ether, triethylene glycol divinyl ether, etc. (page 2, paragraph [0018]). It is worth to mention, that a generic claim cannot be allowed to an applicant if the prior art discloses a species falling within the claimed genus, and the species in that case will anticipate the genus. In re Slayter, 276 F.2d 408, 411, 125 USPQ 345, 347 (CCPA 1960); In re Gosteli, 872 F.2d 1008, 10 USPQ 1614 (Fed. Cir. 1989).

With regard to the limitation of instant claim 4, Loffler discloses that the crosslinking structures are particularly preferably derived from monomer of the formula 4, which is identical to formula 3 in instant claim 4, in which R is hydrogen, methyl or ethyl.

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With regard to the limitation of instant claims 5 and 6, Loffler discloses that by varying the monomers acrylamidosulfonic acid salt and N-vinylcarboxamide, and the proportion of crosslinker, copolymers are obtained which can be used as thickeners both in oil-in-**water emulsions**, and in water-in-oil emulsions at a pH of from 7 to 2.5. Irrespective of whether the invention is to prepare lotions with a comparatively low viscosity, or creams and ointments with **high viscosities**, emulsions comprise an oil substance consisting essentially of emulsifier(s) and an oil phase in the amounts by weight of from 5 to 95%, preferably 25 to 85%, and water to make up 100% by weight (pages 3-4, paragraph [0035]).

With regard to the limitation of instant claim 8, Loffler discloses that water- or solvent-containing systems, such as solutions, emulsions or suspensions, are frequently adjusted to higher viscosities or thickened for economical or performance reasons, or for stability reasons. For many products, **increasing the viscosity** also improves their ability to be spread uniformly, in particular on uneven surfaces. This is true in particular for skincare compositions and pharmaceutical ointments on the skin (page 1, paragraph [0003]).

With regard to the limitation of instant claim 9, Loffler discloses that the copolymers according to the invention are notable for their good thickening action, in particular in **cosmetic and pharmaceutical preparations** (page 3, paragraph [0033]).

With regard to the limitation of instant claims 7 and 10, Loffler discloses that as result of the polymerization in alcohol or alcohol mixture with a **water content of less than 10% by weight** and here in particular in tert-butanol,

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products are obtained, with regard to their residual content of solvent remaining in the product, are toxicologically safe and can be thus used, for example, in **cosmetic products** (page 1, paragraph [0009]).

With regard to the limitation of instant claims 11 and 12, Loffler discloses that the mixture was then cooled to room temperature and the solid was filtered off with suction. The paste was dried at 60-70°C in a vacuum drying cabinet for 24 hours, giving 92.2 g of a fine white powder (composition (page 3, paragraph [0024], Example 1).

With regard to the limitation of instant claim 13, Loffler discloses that N-vinylpyrrolidone can be used for preparation of the composition (page 3, paragraph [0024], Example 1).

With regard to the limitation of instant claim 14, Loffler discloses that by incorporating more ammonium salts of acrylamidosulfonic acids, it is possible to improve the thickening action of the polymers (page 3, paragraph [0023], lines 1-3 and paragraph [0024], Example 1). Additionally, he discloses that the ammonium salt of 2-acrylamido-2-methylpropanesulfonic acid is preferably used for the polymerization (page 1, paragraph [0008]).

Loffler does not disclose using of a higher-boiling solvent or solvent mixture and/or one or more emulsifiers and optionally water which is added to the mixture of polymer and polymerization medium.

Falchi discloses that the polymeric part with the quantity of solvent of the same type or different as above, so as to obtain **the desired polymer concentrations**, and deactivation of the catalyst by bubbling of wet air stream

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(abstract). He discloses a polymerization process of obtaining elastomeric copolymers comprising recovering a polymeric product from the polymeric solution with solvent, said solvent being the **same solvent** as recited in step a) or being a **second solvent of the same class** as the solvent of step a) to obtain the **desired polymer concentrations**, and deactivation of the catalyst by bubbling of wet air stream into the polymeric solution (col. 11, line 61 through col.12, line5).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the same or different solvent of the same class as taught by Falchi to obtain the **desired polymer concentrations** in Loffler's concentrates in liquid or liquid-disperse form to improve their ability to be spread uniformly, in particular on uneven surfaces. This is true in particular for skincare compositions and pharmaceutical ointments on the skin (page 1, paragraph [0003]).

Thus, the combination of Loffler and Falchi renders all instant claims *prima facie* obvious absent evidence of unexpected results commensurate in scope to the claims.

Conclusion

Other references used but not cited in this office action include U.S Patents 6,835,790, 6,780,832, 6,777,385, 6,756,460, 6,506,833, 6,437,068, 6,395,813, 6,310,156, 6,297,336, 5,510,436, 4,792,343, 4,546,172, 4,503,172,

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4,500,693, 4,208,530, 2,844,569 and CA 02209060 are shown on the Notice of References Cited Form (PTO-892).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Bernshteyn whose telephone number is 571-272-2411. The examiner can normally be reached on M-F 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Bernshteyn
Patent Examiner
Art Unit 1713

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08/30/2005


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